

Application Number 10/057,576
Response to Office Action mailed October 2, 2006

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A method comprising:
capturing network packets from a network using a plurality of distributed agents positioned at different locations within the network;
communicating the network packets to an analyzer coupled to the network;
identifying duplicate network packets that were captured by the plurality of agents at the different locations; and
displaying the duplicate network packets or non-duplicate network packets based on the identification;
comparing timestamps of the duplicate packets;
selecting one of the duplicate packets as a representative packet based on the comparison;
and
displaying the representative packet for the duplicate packets.

Claim 2 & 3 (Canceled).

Claim 4 (Currently Amended): The method of claim 1, further comprising: wherein
~~displaying the duplicate network packets further comprises:~~
filtering the non-duplicate packets out of the captured network packets based on the
identification; and
displaying the duplicate packets based on the filtering.

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Claim 5 (Previously Presented): A method comprising:

capturing network packets from a network using a plurality of distributed agents positioned at different locations within the network;
communicating the captured network packets to an aggregator coupled to the network;
and

aggregating the captured network packets into sets of network packets based on source information and destination information for the network packets,

wherein aggregating the captured network packets comprises sorting the network packets based on timestamps of the network packets, assigning the network packets having equal source information and equal destination information to a common set, and identifying duplicate packets within the sets of network packets that were captured by the plurality of distributed agents at the different locations.

Claim 6 (Canceled).

Claim 7 (Previously Presented): The method of claim 5, further comprising displaying a subset of the network packets based on the identification.

Claim 8 (Previously Presented): The method of claim 5, wherein identifying duplicate packets comprises:

identifying network packets having equal sequence numbers and acknowledgement numbers; and

performing a byte-by-byte comparison for payloads of the identified packets.

Claim 9 (Original): The method of claim 5, wherein the source information comprises one of a media access control (MAC) address and a Data Link Control (DLC) address for a source network device.

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Claim 10 (Original): The method of claim 5, wherein the destination information comprises one of a media access control (MAC) address and a Data Link Control (DLC) address for a destination network device.

Claim 11 (Previously Presented): The method of claim 5, further comprising displaying non-duplicate packets of one of the sets of network packets.

Claim 12 (Previously Presented): The method of claim 11, wherein displaying non-duplicate packets comprises displaying a representative packet for the duplicate packets.

Claim 13 (Original): The method of claim 11, wherein displaying a representative packet comprises:

- comparing timestamps of the duplicate packets, and
- displaying one of the packets based on the comparison.

Claim 14 (Previously Presented): A method comprising:

- capturing network packets from a network using a plurality of distributed agents positioned at different locations within the network;
- communicating the captured network packets to an aggregator coupled to the network;
- aggregating the captured network packets into sets of network packets based on source information and destination information for the network packets;
- graphically illustrating the sets of aggregated network packets;
- selecting one of the sets of aggregated network packets in response to user input; and
- displaying the packets of the selected set by identifying duplicate packets within the sets of network packets that were captured by the plurality of distributed agents at the different locations, and displaying non-duplicate packets of the selected set.

Claim 15 & 16 (Canceled).

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Claim 17 (Previously Presented): The method of claim 14, further comprising displaying a representative packet for the duplicate packets.

Claim 18 (Original): The method of claim 17, wherein displaying a representative packet comprises:

comparing timestamps of the duplicate packets, and
displaying one of the packets based on the comparison.

Claim 19 (Previously Presented): The method of claim 17, further comprising displaying a remainder of the duplicate packets not selected to be the representative packet in response to user input.

Claim 20 (Previously Presented): The method of claim 17, further comprising:
displaying an expandable graphical icon proximate the representative packet for the duplicate packets; and
displaying a remainder of the duplicate packets based on user input selecting the expandable graphical icon.

Claim 21 (Original): The method of claim 14, wherein capturing network packets comprises communicating start and stop commands from the aggregator to the agents.

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Claim 22 (Currently Amended): A system comprising:

a plurality of distributed agents positioned at different locations within a network to capture packets from the network, wherein the agents assign the captured packets timestamps;
an aggregation module coupled to the network to receive the captured packets, wherein the aggregation module identifies duplicate packets that were captured by the plurality of distributed agents at the different locations, compares the timestamps of the duplicate packets, and selects one of the duplicate packets as a representative packet based on the comparison; and
a display coupled to the aggregation module, wherein the aggregation module presents non-duplicate network packets and a the selected representative packet for the duplicate packets on the display.

Claim 23 & 24 (Canceled).

Claim 25 (Previously Presented): The system of claim 22, wherein the aggregation module presents a remainder of the duplicate packets not selected to be the representative packet on the display in response to user input selecting the representative packet.

Claim 26 (Original): The system of claim 22, wherein the aggregation module identifies duplicate packets by identifying packets having equal sequence numbers and acknowledgement numbers, and by performing a byte-by-byte comparison for payloads of the identified packets.

Claim 27 (Original): The system of claim 22, wherein the aggregation module assigns the captured packets into sets of packets based on source information and destination information for the packets.

Claim 28 (Original): The system of claim 22, wherein the agents assign the captured packets timestamps and the aggregation module sorts the packets based on timestamps, and further wherein the aggregation module assigns the packets having equal source information and equal destination information to a common set of packets.

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Claim 29 (Original): The system of claim 28, wherein the source information comprises one of a media access control (MAC) address and a Data Link Control (DLC) address for a source network device.

Claim 30 (Original): The system of claim 28, wherein the destination information comprises one of a media access control (MAC) address and a Data Link Control (DLC) address for a destination network device.

Claim 31 (Original): The system of claim 22, further comprising a controller that maintains a communication link with each of the agents, wherein the controller issues commands to the agents via the communication link to initiate and terminate data capture by the agents.

Claim 32 (Currently Amended): A computer-readable medium comprising instructions to cause a processor to:

direct a plurality of distributed agents positioned at different locations within a network to capture packets from the network;

receive the captured packets with an analyzer coupled to the network;

identify one or more sets of duplicate network packets that were captured by the plurality of agents at the different locations;

display non-duplicate network packets;

compare timestamps of the duplicate packets within each of the sets of duplicate packets;

select one of the duplicate packets within each of the sets of duplicate packets as a representative packet of each of the sets of duplicate packets based on the comparison; and

display a the selected representative packet for each set of the sets of duplicate packets.

Claim 33 (Canceled).

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Claim 34 (Previously Presented): The medium of claim 32, further comprising instructions to cause the processor to:

identify network packets having equal sequence numbers and acknowledgement numbers as duplicate packets; and
perform a byte-by-byte comparison for payloads of the identified packets.

Claim 35 (Original): The medium of claim 32, further comprising instructions to cause the processor to aggregate the captured network packets into sets of network packets based on source information and destination information for the network packets.

Claim 36 (Previously Presented): The medium of claim 35, further comprising instructions to cause the processor to sort the network packets based on timestamps of the network packets, assign the network packets having equal source information and equal destination information to a common set, and identify duplicate packets within the sets of network packets that were captured by the plurality of agents at the different locations.

Claim 37 (Previously Presented): The medium of claim 35, further comprising instructions to cause the processor to graphically illustrate the sets of aggregated network packets.

Claim 38 (Previously Presented): The medium of claim 37, further comprising instructions to cause the processor to:

select one of the sets of aggregated network packets in response to user input; and
display the packets of the selected set.